

PLANT SITE SELECTION
AND
AREA INDUSTRIAL DEVELOPMENT

by

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PREFACE

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INTRODUCTION

The inability of Kansas to industrialize rapidly, as fast as industrial promoters wish, is the problem which prompted this paper. It is believed that Kansas industrial seekers can see what works best to attract new industry in recognition of the needs of industry. This report was done with the marketing concept in mind, that is, consumer (industry) rather than product (Kansas) orientated. Kansas has to satisfy a need of industry if it is to attract it and succeed in its quest for industrialization.

There has been a net outward migration of the Kansas population for many years. That is, the excess of births over deaths has been greater than the growth in population. This was true during the World War Two years when the aircraft industry was such an important part of the Kansas economy, especially in the Wichita area. It has been even more severe during the non-war years since 1940.

The Kansas population has not increased with that of the United States as a whole. In 1940, Kansas had 1.33 per cent of the country's population. It was 1.26 per cent in 1950 and 1.21 per cent in 1960. Forecasts by Southwestern Bell Telephone Company indicate that by 1970 the percentage will be 1.13 and by 1980 Kansas will fall to 1.08 per cent of the total United States population.¹

The Kansas economy is based on agriculture. In 1960, thirty per cent of the net personal income of Kansas residents was from agriculture. Farming

¹"Forecasts of Population, Households, and Telephone Development to 1980; September 1962 View," Southwestern Bell Telephone Company, September 1962, p. 1.

and agri-business accounted for \$1.3-billion of the state's total income from goods and services. Farming is 2.5 times as large as the next largest source of income in the state.

Yet, with all this income, 89 of Kansas' 105 counties have worker migration to find jobs.¹ The prime cause of this migration has been clear for many years: Agriculture has not provided the needed jobs. Added industry and service institutions are needed to provide the employment opportunities. This is not to say that agriculture is not important to Kansas; it certainly is. Two out of every five workers, or forty per cent of the Kansas labor force, are employed in farming, agri-business or other related industries such as feed, chemicals, fertilizer, and veterinary medicine.²

The task is to attempt to provide job opportunities for the remaining sixty per cent, the workers who leave, and the workers who want to come to Kansas. To attempt to provide these job opportunities, various city, regional, and state agencies and private groups are trying to get Kansas moving along the path toward industrialization.

Many states are attempting to provide new and expanded employment opportunities. Almost 14,000 agencies and groups--state departments, chambers of commerce, contractors, utilities, banks, consultants, architects, trade associations, and transporters--are vitally interested in attracting plants.

Many tugs-of-war are going on to lure these industries: North vs. South; East vs. West; urban vs. rural; railroad vs. highway; and Mississippi River

¹Glenn H. Beck, "Kansas Assets? Take Look at These," Topeka Capital-Journal, April 19, 1964, p. 24A.

²Eugene Ross, ed., "Exploring Your Future," Kansas State University Bulletin, No. 4-H 152, Extension, 1964, p. 5.

vs. Saint Lawrence Seaway proximity. The South took 100 years to come of age industrially and the West is catching up with the East. The area of the Northeast has lost its hold on industry and has been on the defensive for several years.¹

The Great Plains states have had less time to develop than the South. States similar to Kansas have found it very difficult to attract industries of any size.

Several sections of the country have experienced a decrease in their proportion of the total United States manufacturing employment.

Table 1. Each region as per cent of total manufacturing employment.

Region	: 1899	: 1929	: 1954
New England	18%	12%	9%
Middle Atlantic	34	30	26
West North Central	6	6	6
Mountain	1	1	1
Pacific	3	5	9
East South Central	4	4	5
South Atlantic	9	10	11
West South Central	2	3	5
East North Central	<u>23</u>	<u>29</u>	<u>28</u>
Total	100%	100%	100%

Source: U.S. Department of Commerce, Office of Area Development, Long-Term Trends in Manufacturing Growth: 1899-1955 (Washington, Government Printing Office, 1958), pp. 5, 10.

The New England and Middle Atlantic states have decreased the most. New England dropped from 18 per cent in 1899 to 12 percent in 1929 to 9 per cent

¹Factory, December, 1962, 120:56-59.

in 1954. The Middle Atlantic states fell from a high of 34 per cent in 1899 to 30 per cent in 1929, and further to 27 per cent by 1954.

One section which remained stable was the West North Central. This grouping of states, of which Kansas is a member, maintained six per cent of the labor force from 1899 through 1954.

The West South Central and the Pacific regions were the only sections showing more than a slight gain. The West South Central increased from two per cent in 1899 to three per cent in 1929, to five per cent in 1954; while the Pacific showed the greatest growth, moving from three per cent in 1899 to nine per cent in 1954.

METHODS AND PROCEDURES

In recent years, much information has been printed in various trade journals about industrial location, attraction and selection. The material contained in these articles is divided into three major headings:

1. What is industry looking for in a new plant site?
2. Why are cities trying to obtain new industry?
3. How are cities attempting to attract new industry?

Each of these questions was dealt with separately in this report so that some conclusions could be clearly drawn by comparing what industry looks for and what cities offer in the way of plant locations. Stated differently, this report analyzes the results of the marketing concept within the framework of the industrial development problem.

WHAT INDUSTRY WANTS IN A PLANT SITE

The building of a new plant involves the commitment of considerable amounts of money over a span of many years. Finding the optimum location thus presents an important aspect of business relocation and expansion.

Management that is looking for a new plant site may have a difficult time making a decision, but the difficulty is not for any lack of information. Such a company will be offered hundreds of "perfect" plant sites. A company will be swamped with data on everything from transportation costs to the number of playgrounds available for the employees' children.¹

Most industries which are seeking a new plant location are faced with many restrictions and limitations. Selection of a site is dictated by economics.

Some businesses, such as aluminum plants, obviously must be located near vast supplies of low cost fuel or power such as produced by hydroelectric plants. However, the opposite situation exists for such businesses as the automobile industry. They find it best to locate their assembly plants near their markets, rather than attempt to serve the entire country from a centralized operation in Detroit.

Although several industries are limited to certain locations such as the ones just mentioned, some are quite flexible. For example, textile plants have moved from the North to the South in great numbers over the past few decades. Their main requirement is a huge supply of low cost labor. Both the North and South can fulfill the manpower requirement, but the cost of the

¹Leo Anderson, "The Big Pitch for New Industry," The Management Review, May, 1958, p. 65.

labor in the South was sufficiently below that of the North to cause these companies to relocate in the South.¹

The reasons given by businesses for locating where they do have been surveyed many times in the last twenty years. One study conducted by Doctors Bergin and Eagan concerned firms moving into three southern states. In April, 1958 questionnaires were sent to 820 companies in Mississippi, Kentucky and Tennessee. The companies chosen had either acquired or expanded their facilities within the previous few years. A third of the firms responded to the questionnaires by ranking in order of preference the sixteen factors of plant site selection under study. The results of the investigation are reproduced in Table 2.²

The availability of labor was the leading factor considered in plant location. Third on the list was lower labor costs. It would appear that these two should be closely related since the availability of unused labor would seem to indicate a lower prevailing wage rate in the community. An area that did not have an excess of workers would have its wage rate bid up by the firms seeking additional workers. For this reason the unindustrialized parts of the country often have lower wage rates than areas that already have industry.

Convenience to markets ranked second in this survey of southern states. However, it was listed in first place by more businesses than the availability of labor.

¹"The Rough-and-Tumble of Site Location," Dun's Review and Modern Industry, March, 1963, pp. 98-100.

²Bergin and Eagan, "Are Subsidies Worth While?" Industrial Development, July, 1960, p. 77.

Table 2. Reasons given by new or expanded firms for choice of present location.

Rank :	Reasons for location :	Number of times ranked						
		Total:	1	2	3	4	5	Over 5
1	Availability of labor	143	31	37	20	22	19	14
2	Convenience to markets	116	32	24	22	13	9	16
3	Lower labor costs	102	17	14	29	19	16	7
4	Availability of build- ings or other property	99	26	27	10	20	9	7
5	Availability for raw materials	79	27	18	12	6	6	10
6	Adequate power	79	8	9	14	21	18	9
7	Local cooperativeness	76	3	7	9	19	30	8
8	Less unionization	66	5	18	13	13	12	5
9	Transportation costs	56	9	10	7	12	11	7
10	Transportation facilities	44	2	6	11	6	13	6
11	Home of management	41	15	4	6	8	2	6
12	Decentralization of operation	39	4	6	10	7	8	4
13	Favorable tax structure	32	7	1	6	8	7	3
14	Center of particular industry	29	9	7	0	3	4	6
15	Financial aid	25	3	5	4	6	6	1
16	Climate	20	2	4	4	1	5	4

Source: Industrial Development, July, 1960, p. 77.

According to Walter A. Bowers, there are several reasons why industry tends to locate near their markets. First, because of the time factor, products which deteriorate rapidly in transit are normally produced near their point of consumption. Second, many products are manufactured out of raw materials which are found in most parts of the country. If weight is gained during the manufacturing process, there usually is a transportation advantage for those who are able to produce at their points of sale. Third, even when the raw materials of the company's products are not found near their markets, it is often more profitable for the company to combine its

various raw materials or semi-manufactured materials nearest its final market. This is so because it has normally been cheaper to transport the raw materials or semi-manufactured materials to the point of next consumption than to any other location. The freight rates to the plant near the market do not involve any out-of-line shipments and, thus, the total freight bill will usually be the smallest possible.¹

In fourth place was the availability of buildings or other property. The questionnaire did not differentiate between physical facilities which were subsidized by the locality and those which were for sale or lease at arms length. It would appear, however, that since financial aid ranked a low fifteenth that physical assets associated with public credit would have been considered by a rather small proportion of those surveyed.

The availability of raw materials was placed above adequate power even though they both received the same total weight in the ranking. This was done because the first and second place entries of the availability of raw materials were clearly in excess of the like rankings of adequate power.²

There are many reasons why industries have located near the source of their raw materials. First, because of the tendency of some raw materials to deteriorate rapidly in transit, the processing has to be done near the source of the materials. Second, further processing of semi-manufactured materials tends to be less costly if the later manufacturing stages are integrated with the earlier. This tends to draw the manufacturing where the first processing takes place to the source of the raw materials. Third, many raw materials

¹Walter A. Bowers, "Industrial Development in Kansas," Bureau of Business Research, 1948, p. 50.

²Bergin and Eagan, loc. cit.

lose much of their weight during processing and, thus, there is a transportation advantage in not having to pay transit rates on raw materials which are lost in the manufacturing process.¹

Manufacturing companies consider adequate power supplies to be important in plant site selection. The availability and cost of various types of fuels is the prime factor. Because the relative costs of coal, gas and oil are subject to fluctuation during the year, many plants are built that are able to operate on more than one fuel. These plants are able to burn the lowest cost fuel at any time during the year. They often change from gas to oil during the cold months so that the gas company is able to supply its residential customers.

Electric power is considered important, also. Companies which operate delicate electronic equipment are very particular that the electric current they use is of constant quality. Current which fluctuates can often burn out expensive manufacturing components. Because of this situation, cities which have municipal electric power are sometimes passed over as possible plant sites. Larger cities do not have the bad reputation for poor power that many small towns possess.

The seventh place factor, local cooperativeness, has been the deciding issue for several companies wishing to locate a plant. All else being equal or nearly so, management usually chooses the town which demonstrates its willingness to have the industry by genuine cooperation of the city officials and local businessmen.

Less unionization is a deciding influence on industry which is looking

¹Bowers, loc. cit.

for a plant location since the lack of a union probably means one less problem which has to be dealt with. This factor was ranked eighth. Generally, areas with low unionization have slightly lower prevailing wage rates. The "Right to Work" laws may play some part in the holding back of unionization.

In ninth place was transportation costs. Industries which are drawn toward their source of raw materials are particularly sensitive to freight rates. The same often applies to companies located near their markets. If the raw material rate is low compared to the finished product rate, the companies tend to locate near the market area. While, if the rate is lower on the finished goods, industry tends to locate near the raw material supply. Clearly, freight rates are an important factor in plant location.¹

In tenth place was transportation facilities. It is most important when products must be rushed to market because of rapid spoiling.

Home of management ranked eleventh. This was not considered very important except for fifteen companies which ranked it first. It probably demonstrated a degree of inertia which had been present in these companies affecting plant movements.

Decentralization of operations was considered of third, fourth and fifth importance enough by businessmen to rank it twelfth in this study.

The much talked about favorable tax structure was rated a low thirteenth. The study was taken another step to see what industry which had moved to one of the states thought of it after being there for some time. The state chosen was one which had granted extensive tax exemptions. Twenty-five per

¹Ibid.

cent of the companies thought the tax picture was better than average, while twenty-two per cent actually thought it was worse.¹

Center of particular industry, financial aid, and climate rated a low fourteenth, fifteenth, and sixteenth respectively. In consideration of financial aid, a great proportion of the written comments included with the survey indicated that more than half of the respondents were just not interested in any special financial inducements.²

A specialist in one of America's largest firms, Robert E. Johnson, an economist and actuary for the Western Electric Company, considers the most important factor in plant site selection to be transportation costs. His ideas of what industry should consider are shown in Table 3.

Table 3. Factors involved in selection of a plant site.

I Site	IV Community
(A) Availability	(A) Services
(B) Suitability	(B) Housing
(C) Zoning Regulations	(C) Type of Community
(D) Utilities	V Raw Material Supply
II Transportation	VI Market Locations
(A) Availability	VII Construction Costs
(B) Costs	VIII Taxes
III Area Labor Situation	IX Location of Competitor Plants
(A) Availability and Skills	X Proximity of Headquarters and
(B) Salary and Wage Levels	Other Locations Within the
(C) Union Activity	Same Company

Source: Industrial Development, July, 1959, p. 7.

¹Bergin and Eagan, loc. cit.

²Ibid.

Many of the items listed do not lend themselves to any dollars and cents analysis. However, others require only simple arithmetic. Transportation cost, both incoming raw materials and outgoing finished products, lends itself to ready evaluation through the Operations Research tools of linear programming.¹

A survey undertaken by Dun's Review in 1963 compiled twenty-one key factors in industrial site selection. The information which was presented in this report (Table 4) was collected from federal, state and industry sources throughout the fifty states.

An analysis of these facts in light of the information which is presented in Tables 2 and 3 shows several relationships among the factors.

The availability of labor is generally indicated by the unemployment rate. This has not, however, indicated anything about the relative skill level of the people out of work. Two other factors, union membership and the average wage rate, seem to vary in a direct relationship. The amount of unionization might be decreased by the "Right-to-Work" laws which are in effect in some states. It should be noted that except for Indiana all the states having these laws have economies based largely on agriculture.²

State income taxes range from nothing to over ten per cent. The effects of these and other taxes is difficult to evaluate. Privately, many businessmen state that they are willing to pay higher taxes if they are offered better schools, highways, utilities, fire and police protection, and good local

¹Robert E. Johnson, "Science and Site Selection," Industrial Development, July, 1959, p. 6.

²"The Rough-and-Tumble of Site Location," loc. cit.

Table 4. Key factors in picking plant sites.

State	: Fair employ- ment prac- tices law	: Right- to-work law	: Unem- ployed ¹	: Manufacturing Aver. : Aver. hrs/week : hr. earn	: AFL-CIO Member- ship	
Alabama	No	Yes	6.2%	40.5	\$2.05	185,000
Alaska	Yes	No	4.0	NA	NA	22,300
Arizona	No	Yes	3.7	39.9	2.57	80,000
Arkansas	No	Yes	4.2	40.8	1.67	72,000
California	Yes	No	4.0	40.8	2.79	1,350,000
Colorado	Yes	No	2.1	40.7	2.55	90,000
Connecticut	Yes	No	3.2	41.2	2.41	200,000
Delaware	Yes	No	1.9	41.7	2.42	28,000
Florida	No	Yes	3.9	41.3	2.03	150,000
Georgia	No	Yes	3.4	41.0	1.72	115,000
Hawaii	No	No	4.4	37.0	2.04	24,200
Idaho	Yes	No	5.9	39.7	2.28	20,000
Illinois	Yes	No	2.2	41.1	2.60	1,200,000
Indiana	Yes**	Yes	2.5	41.2	2.67	315,000
Iowa	No	Yes	3.1	39.9	2.52	135,000
Kansas	Yes	Yes	2.3	41.0	2.43	100,000
Kentucky	No	No	4.9	40.2	2.26	132,000
Louisiana	No	Yes++	2.2	43.8	2.25	130,000
Maine	No	No	4.3	40.0	1.90	68,000
Maryland	No	No	4.8	40.1	2.41	195,000
Massachusetts	Yes	No	5.2	38.7	2.25	600,000
Michigan	Yes	No	3.0	42.4	2.93	700,000
Minnesota	Yes	No	5.1	40.4	2.45	258,000
Mississippi	No	Yes	4.8	40.5	1.64	45,000
Missouri	Yes	No	2.9	39.6	2.39	450,000
Montana	No	No	4.9	39.3	2.47	50,000
Nebraska	No	Yes	1.9	43.2	2.19	65,000
Nevada	Yes**	Yes	4.5	39.9	3.10	17,500
New Hampshire	No	No	3.5	40.2	1.89	40,000
New Jersey	Yes	No	4.4	40.6	2.54	500,000
New Mexico	Yes	No	3.1	40.7	2.20	17,000
New York	Yes	No	3.4	39.5	2.45	2,000,000
North Carolina	No	Yes	2.9	41.1	1.63	80,000
North Dakota	No	Yes	4.9	42.4	2.15	18,000
Ohio	Yes	No	4.1	40.7	2.75	1,000,000
Oklahoma	No	No	4.3	41.1	2.18	50,000
Oregon	Yes	No	5.0	37.3	2.62	160,000
Pennsylvania	Yes	No	5.5	39.5	2.41	1,500,000
Rhode Island	Yes	No	4.2	38.9	2.07	58,000
South Carolina	No	Yes	3.0	41.5	1.69	35,000
South Dakota	No	Yes	1.9	44.9	2.20	17,000
Tennessee	No	Yes	5.2	40.6	1.92	150,000
Texas	No	Yes	2.7	41.9	2.31	350,000
Utah	No	Yes	2.2	40.1	2.63	46,000
Vermont	No	No	4.8	41.9	1.95	9,000

Table 4 (cont.).

State	: Fair employ- : ment prac- : tices law	: Right- : to-work : law	: Unem- : ployed ¹	: <u>Manufacturing</u> : Aver. : hrs/week	: <u>Aver.</u> : hr. earn	: AFL-CIO : Member- : ship
Virginia	No	Yes	1.4%	41.4	\$1.92	95,000
Washington	Yes	No	6.8	39.0	2.72	350,000
West Virginia	Yes**	No	5.3	40.0	2.56	70,000
Wisconsin	Yes	No	3.2	41.4	2.53	400,000
Wyoming	No	No	5.3	37.6	2.57	15,000

¹Insured unemployed, latest available figures; not seasonally adjusted.
 NA--not available. **Voluntary compliance only. ++Agriculture only.

State	: Corporate : Income tax	: Office Salaries ¹ : Male	: Female	: % U.S. Market : Consumer	: Industrial	: State : sales tax
Alabama	3.0%	\$88.77	\$65.63	1.19%	1.68%	3.0%
Alaska	#	NA	NA	0.15	0.007	none
Arizona	1.0*	84.80	70.07	0.70	0.23	3.0
Arkansas	1.0*	69.75	58.95	0.63	0.77	3.0
California	5.5	96.61	80.70	8.70	6.69	3.0
Colorado	5.0	86.69	70.92	1.04	0.42	2.0
Connecticut	5.0	91.62	73.03	1.83	2.38	3.5
Delaware	5.0	95.37	78.52	0.33	0.24	none
Florida	none	80.75	65.03	2.48	1.24	3.0
Georgia	4.0	87.85	67.33	1.59	2.33	3.0
Hawaii	5.0	NA	NA	0.37	0.18	3.5
Idaho	9.5	72.50	65.58	0.30	0.17	none
Illinois	none	95.47	73.06	6.62	7.65	3.5
Indiana	none	92.43	70.19	2.52	3.22	0.375
Iowa	3.0	88.08	67.86	1.43	1.01	2.0
Kansas	3.5	87.33	69.44	1.13	0.62	2.5
Kentucky	5.0*	89.46	69.96	1.21	1.15	3.0
Louisiana	4.0	84.21	64.31	1.30	0.99	2.0
Maine	none	78.12	60.86	0.44	0.74	3.0
Maryland	5.0	89.00	71.04	1.90	1.54	3.0
Massachusetts	6.7	83.70	66.79	3.29	4.76	none
Michigan	none	128.50	107.50	4.36	4.28	4.0
Minnesota	10.2	88.94	68.29	1.80	1.29	none
Mississippi	2.0	88.60	61.35	0.66	0.92	3.0
Missouri	2.0	91.54	70.69	2.38	2.69	2.0
Montana	4.5	NA	NA	0.32	0.12	none
Nebraska	none	82.36	65.85	0.75	0.41	none
Nevada	none	NA	NA	0.22	0.05	2.0

Table 4 (cont.).

State	: Corporate : Income tax	: Office Salaries ¹ : Male	: Female	: % U.S. Market : Consumer	: Industrial	: State : sales tax
New Hampshire	none	\$72.50	\$64.00	0.32%	0.68%	none
New Jersey	1.7%	98.20	83.95	4.09	4.94	none
New Mexico	3.0	75.00	71.78	0.43	0.08	2.0%
New York	5.5	87.13	75.25	11.72	9.94	none
North Carolina	6.0	86.35	63.30	1.83	3.70	3.0
North Dakota	3.0*	NA	NA	0.24	0.05	2.0
Ohio	none	95.03	73.84	5.56	7.21	3.0
Oklahoma	4.0	80.57	62.96	1.08	0.61	2.0
Oregon	6.0	100.68	74.62	0.99	0.94	none
Pennsylvania	6.0	91.17	71.45	6.26	9.13	4.0
Rhode Island	6.0	74.69	61.60	0.47	0.88	3.0
South Carolina	5.0	91.00	60.00	0.83	1.50	3.0
South Dakota	none	NA	62.00	0.31	0.05	2.0
Tennessee	3.9	86.00	63.98	1.40	2.23	3.0
Texas	none	87.51	67.00	4.71	3.22	2.0
Utah	4.0	97.18	68.57	0.44	0.23	2.5
Vermont	5.0	88.83	69.31	0.18	0.26	none
Virginia	5.0	84.62	69.86	1.87	1.76	none
Washington	none	95.44	73.08	1.67	1.03	4.0
West Virginia	none	101.00	76.31	0.76	0.68	2.0
Wisconsin	2.0	96.00	68.11	2.13	2.85	3.0
Wyoming	none	NA	NA	0.19	0.04	2.0

¹Male salaries based on average earnings in 8 occupational classifications. Female salaries based on 25 occupational classifications. #--18% of federal income tax. NA--not available. *Higher rates above certain incomes.

State	: Development : and financial : devices	: Fuel costs per : million BTUs	: Coal	: Oil	: Gas	: Transportation facilities : Airlines	: Motor : Carriers	: Railroads
Alabama	A,B	22.3¢	NU	23.5¢	5	38	28	
Alaska	A,B,D	NA	NA	NA	16	NA	2	
Arizona	none	NU	59.6¢	33.6	5	25	2	
Arkansas	B,C	NU	44.1	25.0	5	22	25	
California	none	NU	32.6	35.2	28	250	36	
Colorado	B	23.4	34.0	22.2	8	47	12	
Connecticut	C,D	35.9	39.7	38.8	9	69	3	
Delaware	D	33.7	52.0	31.5	2	13	3	
Florida	D	30.5	34.0	34.5	36	46	13	
Georgia	B,C	28.7	47.8	25.4	11	46	29	

Table 4 (concl.).

State	: Development : and financial : devices	: Fuel costs per : million BTUs			: Transportation facilities : Motor : : Airlines : Carriers : Railroads		
		Coal	Oil	Gas			
Hawaii	C	NA	NA	NA	13	NA	1
Idaho	none	NU	NU	NU	3	7	4
Illinois	B	24.8¢	67.5¢	24.2¢	16	232	32
Indiana	none	22.0	70.6	27.2	8	119	22
Iowa	none	27.1	67.6	26.1	4	96	20
Kansas	B	28.5	42.6	20.0	10	34	13
Kentucky	A,B,C,D	17.5	NU	20.5	8	30	19
Louisiana	A,B,D	NU	27.0	22.6	12	36	35
Maine	C,D	41.1+	40.3	NU	2	19	8
Maryland	A,B,C,D	31.9	77.7	NA	12	150	6
Massachusetts	D	35.8	36.8	36.3	16	122	6
Michigan	none	30.8	77.3	35.1	15	137	31
Minnesota	none	29.9	59.2	24.4	8	78	21
Mississippi	A,B	38.2+	50.9	26.1	3	16	18
Missouri	B	22.4	51.4	22.0	10	114	24
Montana	A	21.6	NU	22.8	4	12	11
Nebraska	B	29.0	49.6+	26.5	5	75	10
Nevada	none	NU	58.4	39.8	7	9	3
New Hampshire	C,D	40.5	37.7	NU	2	11	6
New Jersey	C,D	34.6	35.0	32.5	11	216	17
New Mexico	B	26.9	35.0	21.3	3	16	6
New York	C,D	34.8	36.4	41.0	39	357	36
North Carolina	D	26.9	NA	NA	6	80	29
North Dakota	A,B	27.3	71.0	34.0	3	23	6
Ohio	D	22.4	54.9	28.7	14	255	34
Oklahoma	A,B,C,D	32.3	31.9	17.3	5	45	19
Oregon	none	45.6	39.6	35.9	9	38	16
Pennsylvania	D	25.4	38.6	32.2	9	288	7
Rhode Island	A,C,D	36.1	38.9	36.8	6	17	4
South Carolina	A,D	27.8	38.3	28.6	5	22	16
South Dakota	D	30.0	121.3	26.0	5	15	7
Tennessee	B	19.1	NU	NA	10	55	13
Texas	none	NU	45.9	17.8	15	152	32
Utah	none	22.0	44.0	27.0	8	25	7
Vermont	A,B,C,D	40.0	NU	NU	2	14	10
Virginia	D	26.3	87.1	27.5	13	72	14
Washington	C	NU	33.8	39.5	9	196	16
West Virginia	C,D	18.4	80.5	21.7	6	29	22
Wisconsin	B	31.6	81.1	28.3	6	66	16
Wyoming	none	11.4	26.0	20.0	2	10	6

A--Permissive tax exemptions; B--Municipal bonds; C--State financial assistance; D--State development corporations; NU--fuel not used or in inconsequential amounts. NA--not available. +--Dun's Review estimate. Source: Dun's Review, March, 1963.

government. Industry wants fair taxes, not just low ones.¹

A factor which none of the previously mentioned reports considered is the industry preference for developed counties compared to underdeveloped counties. The results of a survey reported in Industrial Development are shown in Table 5. This table as expected shows that as an aggregate the preference for developed areas has been almost seven times that for underdeveloped counties.

Table 5. Industrial preference for developed and underdeveloped counties in Florida, 1956-57.

	:	: Food and	: Lumber and	:	: Electrical	: Metal	: All
	: Plant size	: kindred	: wood	: Chemicals	: machinery	: fab.	: Firms
	:	: products	: products	:	:	:	:
DEVELOPED	0-24	47	40	10	20	80	525
	25-99	1	5	2	2	12	69
	100-499	3	0	0	8	6	40
	500-over	1	0	1	2	0	8
	Sub Total	52	45	13	32	98	692
UNDERDEVELOPED	0-24	4	22	5	0	6	70
	25-99	7	5	3	0	0	26
	100-499	3	0	4	2	0	13
	500-over	0	0	0	0	0	1
	Sub Total	14	27	12	2	6	110
Total	66	72	25	34	104	752	

Source: Industrial Development, July, 1960, p. 95.

¹Richard Murphy, Jr., "Business Moves to the Industrial Park," Harvard Business Review, May, 1959, p. 84.

Of the specific industrial groups listed in Table 5, only lumber and wood products show a strong preference for the underdeveloped counties. This is probably because of the availability of raw materials. In fact, most of the companies interviewed listed the prime reasons for choosing their location to be low freight rates on raw materials or finished goods, availability of raw materials, convenience to markets, and anticipation of growth in the local markets for the companies.¹

From this discussion of what industry is looking for in a plant site, it is clear that four factors have been of prime importance. They are: (1) The availability of labor and its cost, (2) The availability of raw material and its cost, (3) Availability of transportation and its cost, and (4) Accessibility to markets.

Two factors which are greatly talked about, financial aid and a favorable tax structure, were shown to be of limited importance in considering a plant site. For example, Thomas P. Bergin of the University of Notre Dame, surveyed 6000 businesses that had recently located in, or expanded in, the South. He found that financial aid, including ready-made shell plants, ranked a low fifteenth out of sixteen site selection factors considered by industry. Only a favorable tax structure ranked lower.²

¹Bergin and Eagan, op. cit., p. 95.

²"Industrial Aid Bonds: Boon or Bane?" Dun's Review, March, 1963, p. S100.

WHAT INDUSTRY MEANS TO A CITY

The successful courting of new industry is one of the major endeavors of the contemporary American municipality. Numerous political units have formed industrial development corporations to aid themselves in economic growth. While these development groups have assisted already established local industry to expand its plants, their prime target is the attraction of new industry.

A University of Oregon report states that the survival of many cities is dependent upon the attraction of new industry, while the opposite is true in some cases. A few towns, which are inadequately prepared to provide the needed services more industry demands, run serious risks of worsening instead of bettering their economic positions through new plant acquisitions.¹

What are the economic results of a new industry on a city? National estimates for capital investment in a new plant indicate that from \$12,000 to \$15,000 is invested per worker. In many industries, such as chemicals and steel, the amount per worker runs much higher. Investment per worker in the chemical industry is around \$50,000 and is nearly \$100,000 in new steel mills.

A new plant employing 100 workers means a flow of cash into the local community as plant construction gets underway. The new industry provides construction jobs, utilizes local service firms, and uses building materials from local suppliers. That is the immediate shot-in-the-arm for the community's economy. When the business gets into full operation, the benefits

¹Herman Kehrli, "Gaining Industry Major Local Goal," National Civic Review, December, 1960, p. 624.

from the annual payroll are even greater.¹

A United States Chamber of Commerce study as reported by Dun's Review indicated that, on the average, a new industry with 100 new jobs to fill brought 359 new citizens into the community. These people added \$710,000 in additional purchasing power and \$229,000 in new bank deposits into the local economy. Additionally, there were 100 new households added, total spending in local stores increased \$331,000 and three new stores were opened. These benefits plus 97 additional automobile registrations provided an expanded tax base upon which the city could operate.²

While few people expect the benefits just mentioned to be so great, they are generally aware of their existence. What they are not aware of is that jobs in a new manufacturing industry produce additional jobs in other fields. This is the employment multiplier at work.

Just as the investment multiplier applies to total income, so the employment multiplier applies to total employment. The change in investment times the multiplier gives the addition to income. Likewise, the change in primary employment times the employment multiplier results in a larger change in the total employment.³ Everytime a company locates a new plant which employs 100 workers it creates a need for other services of various types. There is a corresponding increase in employment in these service areas.

Several university and research institute studies indicate that the

¹"What Is Your New Plant Worth?" Industrial Development and Manufacturers Record, June, 1959, p. 10.

²"The Rough-and-Tumble of Site Location," Dun's Review and Modern Industry, March, 1963, p. S97.

³Dudley Dillard, The Economics of John Maynard Keynes (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1948), p. 98.

multiplier differs in accordance with both the industry and the community. The U. S. Chamber of Commerce study already mentioned reported that the multiplier was 1.74 for the areas studied. The areas used were in nine counties of as many states. The counties selected were experiencing rapid industrial growth. On the average, they showed that 174 other jobs were created by the addition of 100 new manufacturing jobs in the county.

Two university studies showed similar results. The University of Texas reported a multiplier of 1.55 for a survey conducted in Denton county, while a University of Nebraska study indicated an average of 1.4 for several Nebraska towns. However, a DuPont research report indicated that a ratio of 2.60 new job opportunities were created by the chemical industry locating a sizable plant in a city.¹

Table 6 lists the number of new jobs created by the employment of each 100 chemical industry workers. The most significant fact of the DuPont study is the close relationship between farming and industrial development, especially the chemical industry. Many agricultural areas have the feeling that industry is a competitor. However, this research shows farming as the one area most benefited by community growth based on new manufacturing industry.²

As a national average, there seems to be an increase of approximately 1.73 jobs in a community from the addition of each new manufacturing worker. The increase in the town's population is almost three times the business'

¹"What Is Your New Plant Worth?" loc. cit.

²Loc. cit.

Table 6. Jobs created by each 100 chemical industry jobs.

Job	: No.	:	Job	: No.
Bus drivers	.42		Waitresses	1.6
Department store clerks	2.5		Lawyers and judges	.44
Plumbers	.13		Doctors	.57
Painters	1.0		Firemen	.30
Dressmakers	.44		Bank clerks	.66
Stenographers, typists	2.2		Cleaners, laundrymen	1.6
Carpenters	2.6		Musicians	.44
Truck, tractor drivers	4.0		Gas station attendants	.40
Printers	.22		Beauticians, barbers	1.0
Highway workers	.10		Librarians	.14
Food clerks	1.3		Cooks	.66
Newsboys	.09		Architects	.06
Electricians	.22		Miners	2.2
Real estate agents	.16		Nurses	1.0
Shoe repairmen	.16		Teachers	.50
Pharmacists	.25		Editors, reporters	.25
Florists	.13		Plasterers	.13
Mechanics, machinists	2.2		Bookkeepers	2.0
Dentists	.20		Telephone operators	1.0
Technical engineers	.14		Shoe clerks	.20
Photographers	.14		Entertainers	.13
Bakers	.33		Hardware clerks	.44
Tailors, furriers	.40		Farmers	28.5

Source: Industrial Development, June, 1959, p. 10. Report of DuPont study.

employment. Retail sales increase about \$4,000 per year per employee.¹

Increasing population and industrial development create a need for more government services such as water, sewage, fire and police protection, and public schools. Electrical needs are met along with gas needs by the utilities. These services, most of which are usually or often publicly operated, are paid for by service charges and/or taxes.

¹Richard Murphy, Jr., "Business Moves to the Industrial Park," Harvard Business Review, May, 1959, p. 84.

A typical factory, because of its high property valuation, usually brings in more tax revenue to the local governments than several hundred private houses. Thus, a factory valued at \$1,000,000 and taxed at a rate of ten dollars per thousand of valuation pays \$10,000 to the local governments in taxes. If private houses were taxed at the same rate and the average house was valued at \$10,000, it would take one hundred houses to produce the same amount of tax revenue. What often proves to be the case, though, is that industry is taxed at a higher rate than private homes. The same effect is brought about by taxing at the same rate, but assessing industry at a higher valuation than the private dwellings in relation to market value.

In terms of governmental services such as the public schools, industry pays the substantial part of the total cost of education. The average family has two to three children. The national average cost of educating one child for one year is \$200. This means that the average family would pay \$400 to \$600 per year for education alone. Yet the average taxpayer pays only a small fraction of this cost. Industry bears the rest.¹

In one New England town, an area that had produced little tax revenue became the city's largest tax producer. A gravel pit which had brought in \$3,320 per year in taxes was developed into an industrial park yielding taxes of \$325,000 per year. The gain to the city in revenue is clear. It would be improbable that the services that the city gave in return would cost more than the marginal gain in taxes of \$321,680.²

The reasons for starting industrial development programs are varied, but

¹"What Is Your New Plant Worth?" loc. cit.

²Murphy, op. cit., p. 83.

they follow a general pattern. For the railroads it is a matter of increased traffic; for the utilities it becomes a drive to achieve economies of scale which will come with larger operations; and for the cities it helps satisfy a need for: "diversified industry," "a balanced economy," "jobs for a growing population," and "a reduction in unemployment."¹ The ultimate reason cities want industry is, of course, to provide a source of tax revenue to pay for the added services demanded by a growing population.

Many smaller cities have developed around one large industry. They feel the ups-and-downs of the business cycle through the effects of the multiplier which works just as well to the detriment of the community as to the well-being of the citizens. It is no wonder that they lead the drive for diversified industry and a balanced economy. This is the way to prevent the wild, damaging effects of a decline of one industry on a town.

With a few exceptions, the locating of an industry in a city has meant a stimulated local economy due to the capital investment and additional workers for which jobs have been provided. Other businesses have felt a stimulated demand for their products because of the added buying power of the city's citizens. Because of added bank deposits, banks have been able to lend additional funds to local businesses wanting to expand. Thus, the total economic level of activity increased throughout the city.

The increased population and business activity have meant a larger demand for government services. The new industries and expanded local businesses have paid for this additional service and paid a greater share of the prior services. This has often meant a decreased tax burden for the citizens as the industrial tax base has grown.

¹Anderson, op. cit., p. 66.

HOW CITIES ARE ATTRACTING NEW INDUSTRIES

Considering that the results of industrial development are so advantageous for a community, it is small wonder that the technique of industrial site location has grown into a \$220-million a year business. Each year the battle for industry grows hotter as town, state and county governments, transportation companies and utilities vie to gain the favor of those seeking to locate a new plant. And small wonder, also, that with the added need to cure localized high unemployment, competition reaches the point where few holds are barred, with increasingly controversial methods being used to induce businesses away from rivals.¹

The big push for industrialization started in 1936 when Mississippi began the trend toward public financing of business with the establishment of a local government credit system under its BAWI (Balance Agriculture With Industry) program. This operation has been responsible for about twenty per cent of the new industry which has located within the state since its inception.²

Under BAWI, cities, towns and counties are able to vote bonds for the purpose of financing industrial sites and buildings for desirable industries. These holdings are either sold or leased to the occupying business. County and municipal ad valorem taxes on property owned and used by the manufacturer in the conduct of his business are waived for up to five years, except on inventory of finished products. Property leased under BAWI is not subject

¹"The Rough-and-Tumble of Site Location," op. cit., p. S97.

²Business Week, November 16, 1957, p. 86.

to taxation.¹

In 1956, twenty years after Mississippi started the bond movement, eleven states allowed municipalities to issue bonds for erection of new or expanded plants. Seven state credit corporations were established using private capital. Eight other credit groups were established on paper but, by 1956, were not yet in operation. By 1963 the total had risen to nineteen states permitting such bonds. Several states had local no-profit organizations to help bring industries, and twelve allowed temporary local tax exemptions by 1963. Pennsylvania even directly appropriated state funds for second mortgages to induce industry.²

Many states have added to the financial aid available to businesses seeking plant sites by legislating a "favorable tax structure." The state corporate income taxes range from nothing to over 10 per cent (Table 4). Ohio, one of the states having no corporate income tax, chooses not to tax business under the belief that this creates a favorable tax climate. They believe that this legislation shows business that the state has a favorable attitude toward business. They contend that this is responsible for new industries moving to their state.

It is also assumed that the tax money saved by the businesses will be reinvested in Ohio and through the use of the multiplier the total revenues to the state will increase. Ohioans offer as proof of their position the contention that Ohio has grown industrially at a much faster rate over the

¹Chemical Week, April 11, 1959, p. 31.

²Business Week, loc. cit.

last twenty years than any of her five neighbors.¹ This argument is of doubtful validity since only two of the states bordering on Ohio, Kentucky and Pennsylvania, have a corporate income tax. And their tax rates are only five and six per cent, respectively. Also, the effect of no corporate tax on industrialization is pure conjecture since Ohio has been a heavily industrialized state for many, many years. The presence of industry and its related support facilities naturally bred and attracted new industries.

Herman Kehrli, commenting in the National Civic Review, noted that the granting of temporary tax exemptions is one of the oldest devices to induce plants to locate in an area. He pointed out that by 1960, nine of the sixteen states which had allowed this type of industrial inducement had dropped the practice thus indicating that it had not proven the panacea it might have appeared.² However, it has not died altogether. By 1963, the tide had been reversed and more states were beginning to grant temporary tax exemptions. The count was up to twelve (Table 4) in 1963 and has continued to grow.

Some areas use various types of personal selling. Kentucky uses state-wide tours for likely prospects. Some multi-state firms, such as Panhandle Eastern Pipe Line Company, habitually make company planes available to prospects interested in inspecting sites along their right-of-way. State governors often take an active part in state development. The governor of Virginia annually takes his cabinet to New York City for two days of wining and dining hundreds of businessmen in order to extol to them the virtues of the Old Dominion. The governor of Louisiana twice entertained executives of

¹Taxes--The Tax Magazine, July, 1959, p. 637.

²Herman Kehrli, "Gaining Industry Major Local Goal," National Civic Review, December, 1960, pp. 624-625.

DuPont in a successful attempt to have a \$20-million adiponitrile plant for a site near New Orleans.¹ Governor Anderson of Kansas entertained top executives of businesses having branches in the state while on a trip to New York City. He recognized the value of these companies to the state and asked the industrialists what Kansas could do to encourage businesses to locate in the state. The business leaders were asked to tell their business friends about the virtues of Kansas for industrial location.

The use of booklets and brochures for industrial development promotion was ranked second to personal selling by forty-three of forty-eight state wide organizations as reported in a survey in The Management Review. These organizations reported that they use collateral pieces, ranging from simple folders which point out the general desirability of the area to massive documents having a detailed description of all the important facts about the economic situation.² An example of this type of operation is the Michigan Economic Development Department which sends a summary report of available plant sites to industry across the country every six months.³

A third factor, space advertising, was ranked above personal selling by a few. The most popular types of advertising are newspapers and general business magazines. Several groups use magazines which are oriented along trade lines to present their case before business leaders. In 1958 it was estimated that about \$40-million per year was being spent on radio, television, newspaper and periodical advertising. Considerably more money was

¹"The Rough-and-Tumble of Site Location," op. cit., p. S100.

²Anderson, op. cit., p. 66.

³"The Rough-and-Tumble of Site Location," loc. cit.

spent on collateral material, personal selling, and other activities and services.

A comparatively new arm of industrial development is the trade show. New York City hosted the first National Industrial Development Exposition in the spring of 1957. This small start had 34 exhibits, representing 70 organizations. The purpose of the show is, according to Raymond Y. Bartlett, president of NIDE, "to provide industry management and their technical staffs with an opportunity to view and discuss at first hand, in one place, the latest development facilities offered by various localities and organizations."¹

In conjunction with state laws, a common form of persuasion used by many cities is the offer of various types of financial aid. More and more communities are building shell plants which are rented to businesses at very low rates. These are often financed through the issuance of industrial revenue bonds. Such bonds are sold under the aegis of local governments and thereby qualify as tax exempt municipal securities. Because of the lack of federal tax on these bonds, the price paid to the city for the bonds is usually higher than a normal security. This results in lowering the bond servicing cost. The city passes this savings along to the occupant of the building in the form of very low rent.

City bond prices are often higher than other comparable securities of equal risk. Assume an investor wants to buy a bond with a yearly yield of three per cent after taxes and his income tax rate is 25 per cent. The bond price would be figured as follows:

¹Anderson, op. cit., p. 67.

	Municipal	Industrial
Par	\$100.00	\$100.00
Stated rate of interest	<u>3%</u>	<u>3%</u>
Yield after taxes	\$ 3.00	\$ 2.97
Income tax	-	.99
Yield before taxes	<u>\$ 3.00</u>	<u>\$ 3.96</u>
Bond price	<u>\$100.00</u>	<u>\$ 99.04</u>

An industrial bond would sell below par thus yielding the company less than the municipal bond selling at par would yield a city.

If, in a not too common situation, a firm purchases the bonds from the city on the property it occupies, it receives a double advantage. The interest the firm receives is not subject to federal taxation and the rent which it pays to the city is a deduction from taxable income. Thus, if a firm rents a building from a city, the effect of a fifty per cent tax rate means that the government in effect pays for half of the rent. The interest the firm receives on the bonds is tax exempt and is applied to the remainder of the rent thus leaving very little rent for the firm to pay out of its pocket.¹

This type of financing has made enormous gains in the past several years. Between 1936 and 1960 almost 300 city, county and state governments in eleven states raised \$270-million to finance local industry. Even more important, almost half of this amount was raised in a three year period from 1960 through 1962.²

¹Oswald D. Bowlin, "Private Business and Industrial Aid Bonds," Atlanta Economic Review, June, 1963, p. 12, Georgia State College School of Business Administration.

²"Industrial Aid Bonds: Boon or Bane?" loc. cit.

Cities as well as states have found that personal selling is the most successful approach toward securing new businesses. For example, in selling the Henneberry Rotogravure Company of Chicago on opening a branch plant in Flora, Illinois, Major Norman Bryden of Flora and Robert Henderson, head of the Department of Community Development of Southern Illinois University, had a series of meetings with the president of the printing company. They told him what Flora was able to do to help the company to locate. The university was able to promise a testing program which could be used to select men for supervisory jobs, as well as to promise to help the company in its training program.¹

When financial inducements, personal selling and promotion campaigns have not brought industry to a city, what has a city been able to do to correct its plight? Deming, New Mexico (population 7,500), was in such a situation until August of 1958. It had tasted the fruits of lavish income--an Army Air Corps base during World War Two and a shell factory during The Korean War--and it was looking for industry to perpetuate this kind of added income.

Deming had not had much luck at the usual approaches to bringing industry to town. However, in August, 1958, it took advantage of a 1955 state law and clinched its first new manufacturing plant by the most direct route possible--it purchased the business and moved it from California to Deming.

The New Mexico law permits municipalities to own, but not to operate, a going concern which locates within 15 miles of the city. In the Deming

¹Anderson, op. cit., p. 66.

example, the first under the law, only \$1.9-million of the city's \$15-million bonding power was used. The law permits municipalities to finance businesses through industrial revenue bonds issued outside of the normal debt limits. These bonds are self liquidating, principal and interest being paid from the revenues of the city owned companies.¹

Deming contracted the administration of the business to the old owners who have paid about ninety per cent of their earnings to the city in the form of lease payments. This high rate of lease payment was designed to cover the bond redemptions and premiums. The city plans to use further earnings to finance additional industries and additions to the present ones.

The desirability of such an arrangement is questionable. How is it possible for Deming to own and yet not have a voice in the operations of the business? What are the political ramifications of such an arrangement when some may not like the method of operation of the firm? Do the company's non-owner operators give top flight administration to a business in which they are not vitally concerned through financial involvement? The answers to these obvious questions are not available. It is presumed that the operations of the firm in Deming have not been under way long enough for these problems to show their ugly heads. The probable success of such a program is doubtful.

The use of various types of promotional campaigns is increasing at a rapid rate. Much of the increase is due to localities trying to keep competitive with their more aggressive neighbors in the quest for more industry.²

¹"To Attract Industry, But It," Business Week, August 9, 1958, p. 33.

²Anderson, loc. cit.

SUMMARY AND CONCLUSIONS

The quest for industrial development has become a multi-million dollar program carried on by both public and private organizations. These groups have realized that their city or state has been able to grow only when there have been enough jobs available to handle an expanded population. New industry has meant added investment for the economy. And as Keynes has pointed out, added investment has meant added employment. That is, the investment multiplier and the employment multiplier have had beneficial effects on local economies and employment through their effects on primary investment and employment.

Industry has been looking for many things in a new plant site. Among the more important factors have been the availability of labor and its cost; the availability of raw material and its cost; the availability of transportation and its cost; and the accessibility of markets.

Industrial promoters, on the other hand, have stressed such advantages as a favorable tax climate, a favorable industrial climate, direct financial aid, and a good place in which to live and operate a business. The success of these approaches has been questionable. Financial aids such as the use of tax exemptions and public credit have as their primary justification the attraction of industry from outside the state's boundaries. Attempts along this approach have been only slightly successful.¹

According to Business Week, "even in states that give assistance of one kind or another, more plants are located without help than with help; but in

¹Bergin and Eagan, loc. cit.

a few cases, the assistance may make the difference between getting one or not."¹

How successful have the industrial development programs been? John S. Welch, manager of area development for the Pacific Gas & Electric Company, has given a typical answer. "Very difficult to judge. So many factors enter into the selection of a site or even an area. I doubt that anyone can say: 'We were solely responsible for bringing in X plants worth Y dollars.'"

However, there has been enough data available to indicate that in some cases the activities of an industrial development promotion have directly resulted in the obtaining of new industries worth millions of dollars and employing thousands of persons.²

Most of the discussion thus far concerning what industry is looking for in a plant sight can be ultimately traced to the population an area has. People are where jobs are. Such factors as markets, raw materials in the form of semi-manufactured goods, labor supply, and power are usually where the people and other industries are located. Since this is true, it is clear that an area that is presently industrialized will tend to continue or expand in its present economic mode of activity.

The question of how to start this process is what bothers states today. Industrially underdeveloped areas are having difficulty with economic expansion. After all, people are where industry is; and it is impossible to have one without the other. Which must come first: industry or population? In the author's opinion, both must come at once until the trend toward

¹Business Week, loc. cit.

²Anderson, op. cit., p. 66.

industrialization is firmly established.

There are three prime examples of states that have and are industrializing in this manner. They are called "Boom" or "Growth" states. Essentially the same reason is responsible for their development. Somebody has done a super sales job in promoting these states. All three states took what was once thought to be a liability and turned it into a multimillion dollar asset. Florida took a swamp and turned into a vacation and retirement paradise. Arizona took a hot desert and said it was healthy and people and industry moved there in droves. California did the same thing with its deserts and citrus groves. Each state turned the tide toward industrialization in a short period of time. Florida and California have done it in the last thirty years and Arizona in the last fifteen.

Florida's and California's populations increased 232 and 171 per cent respectively in the last 30 years while Arizona's population increased 103 per cent in the last 15 years. The national growth was 46 per cent for the last 30 years and 42 per cent for the last 15 years.

In each case some farsighted people recognized the potential of an area's once thought of liability. Who could possibly want to live or work in the desert or swamp land? Nobody did, but now many do and more want to live there.

Another thing that these three states have in common is a large recreational establishment. Americans seem to want to live near plenty of outdoor sports areas and these states have provided them.

To apply this concept to Kansas is indeed challenging. Perhaps one possibility of promotion would be Kansas' history. What American, or for that matter anyone in the western world, has not heard of how the west was

won? The names of Wichita, Dodge City, Abilene, or Fort Riley are familiar to almost everybody. The reason they are household words can be laid at the footsteps of Hollywood, which, by the way, has made millions of dollars off of the history of Kansas.

Combining this with the expanding recreational facilities in the state and a positive attitude about the climatic conditions could very well promote a boom over a thirty year period such as in the previously mentioned states.

APPLICATION TO KANSAS

This discussion of the important problem of how to foster economic development has been general and nation-wide in scope rather than limited to the specific problem of industrial growth in Kansas. However, it is possible to come to some conclusions about the problem Kansas is having in moving into this area of economic development. Kansas has a product to sell and industry has had in mind a product it wants to buy. The two have not been the same in the past; however, they are slowly edging together as the center of population and industry has moved westward. Closely following the center of population and industry are nearness to markets and the availability of raw materials.

Another factor, freight rates, has played an important role in the development and maintenance of particular industries. Changing freight rate structures have caused the abandonment of flour milling facilities in many cities throughout the state. The cities of Kingman, Winfield, Salina and Newton have been hard hit by the abandonment of these industries.

Kansas was the leading flour milling state in the nation until the establishment of lower freight rates on wheat, but not on flour, made it possible to ship wheat at one third the cost of flour to the southeastern states. New milling plants in the southeast have had a decided advantage over their Kansas competitors.

Governor Anderson and the Kansas Corporation Commission have tried to defend the Kansas milling interests before the Interstate Commerce Commission. Their testimony pointed out the inequalities of the new rates and the ruin it has brought the Kansas milling industry, but, thus far, has met the

deaf ear of the commission.¹

Another example of a Kansas industry which is at the mercy of outside factors is agriculture. The supply and demand conditions nationally and internationally have determined the prosperity of farming in Kansas. Other Kansas industries such as oil, coal and minerals are in the same situation.

Even a large part of Kansas' manufacturing is determined by outside factors. Federal expenditures on military planes account for a large part of Kansas' manufacturing.²

To help speed the movement of industry toward Kansas, the Department of Economic Development was recently created by the State Legislature replacing the Industrial Development Commission. This new state agency is designed to advance the promotion campaigns of the state throughout the country. It points out that Kansas has many "intangibles" which make it a good place for industry to locate.

The intangibles most mentioned have been the quality of the people and their dedication to their work. Businessmen who have located in Kansas report that they consider the quality of workers they receive from the farms and small towns to be superior to those of other areas.³ A similar feeling was expressed about the quality of aircraft workers in the Wichita area by an executive of the Lear Jet Corporation. He went on to state that Kansas is the only place in the world which can meet Lear Jet's needs.⁴

¹Saralena Sherman, "State Loses Mills; Protest Advocated," Topeka Capital-Journal, September 23, 1964, p. 1.

²John Anderson, Jr., First Annual Economic Report of the Governor, January, 1964.

³Beck, loc. cit.

⁴Statements made to the author during a plant visit; August, 1964.

In keeping with the above feelings, the KDED recently seized upon this belief for a slogan, "in Kansas, it's the people that make the difference." This slogan and the intangibles approach have been printed in many national magazines. The results of this campaign, although not measurable as yet, are reported to be favorable by the KDED.¹

Kansas cities have used municipal bonds, personal selling, and city development corporations to attempt to attract new industries. The shell plant approach has been popular. Such shells often are built by local corporations which are financed by locally subscribed stock sales. Council Grove is waging an extensive campaign by the use of radio advertising in conjunction with its local development corporation. The results of these and other local promotions have not led to rapid industrial expansion in the state. Many, if not most, of the firms which have been attracted have been rather small, employing less than a hundred people.² The exact number of these firms and their capitalization, employment and place of origin has not been readily determined.

A widely held belief by many Kansas businessmen is that part of the problem Kansas faces is due in no small part to its image in the eastern and more populous states where the industrial leaders live. Kansas has an image as a flat, dry, dusty plain sparsely inhabited with anything but tornadoes and jackrabbits. Unfortunately, Kansans are the chief propounders of this untruth and, thus, are their own worst enemies.³

¹Jack Lacy, Speech to Kansas Association of Radio Broadcasters, Spring, 1964.

²Ibid.

³The accuracy of these viewpoints are not without challenge.

By no means do all Kansans support the drive for industrialization. Some suggest a more clearly defined approach to helping certain already established industries to expand.

Some insight into the particular problem of industrial development in Kansas is given by Jim De Marco, manager of the Hays, Kansas, Chamber of Commerce.

I personally believe that...industrial development in Kansas [could be helped] by studying the marketing of goods manufactured in Kansas and how the system could be improved by suggesting some new methods. If you consider that at least 84 per cent of all manufacturing plants in Kansas are home-grown, it may be more pertinent to pay more attention to them than to concentrate on the 16 per cent that originate from other sources. This is reinforced by the fact that although there is an average of 500 to 600 plants a year in motion in the United States, there are always at least 14,000 cities in the country that are baiting them very strongly. The return on the total community's effort, financial or otherwise, is usually rather ridiculous. The movement for industrial development has, at heart, the creation of new jobs. It may be more profitable to create jobs by developing markets for goods and services already in production in Kansas than to chase chimeras all over the world. May be we should introduce the one-two punch rather than to continue to depend on the all-or-nothing punch. By the way, to date, we have received more nothing than all.¹

In this light, Dean Glenn Beck of Kansas State University's College of Agriculture suggests that Kansas pay more attention to those industries already here and those areas of business, specifically agri-business, for which it is best suited. New meat packing plants are examples of agri-business which provide jobs. Kansas, by using its own grass, grain, sorghums and climatic advantages, was able to expand its meat packing industry and to be competitive.² This was done in spite of the fact that the Kansas meat

¹Letter from Jim De Marco, manager of the Hays Chamber of Commerce, March 16, 1964.

²Beck, loc. cit.

packing industry, which used to be the second largest in the nation, was faced with a problem similar to that of the milling industry pertaining to freight rates.¹

Dean Beck further points out that in the areas of agriculture and agri-business, more than ever, economic advancement is based on the results of research. A few states which have research programs are able to provide the bulk of the food and fiber of the nation and for export. In these states the expansion of agriculture and agri-business means expanded economies blessed with higher employment, bigger tax bases, better schools, and other benefits that accompanied such growth. An example of such a business is the Hesston Manufacturing Company of Hesston, Kansas, which in just a few years has grown to be the thirteenth largest agriculture equipment manufacturing firm in the nation.

Kansas has "the land, the agricultural production, the climate, the geographic location that all seem to favor economic development in agri-business...."² This and the aircraft industry seem to be the most important areas in which Kansas is not at a serious disadvantage, except for freight rates, and thus, they are the largest areas in which significant expansion is able to occur.

In the author's opinion, the views of Dean Beck and Mr. De Marco seem to have greater merit than the varied program being presently carried out by many Kansas cities and towns.

¹Sherman, loc. cit.

²Beck, loc. cit.

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PLANT SITE SELECTION
AND
AREA INDUSTRIAL DEVELOPMENT

by

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AN ABSTRACT OF A MASTER'S REPORT

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Kansas has had a net outward migration of population for many years. This has been largely the result of a lack of job opportunities resulting from an economy based heavily on agriculture.

To reverse this trend, Kansas cities and interested organizations have established industrial development agencies to entice new industry to locate in their areas. Kansas, however, is not the only state trying to get new industry. All forty-nine other states have similar programs in operation.

This paper surveys the current literature on industrial development to see what relationships there are between the desires of industry and the offerings of cities. The results of industrial development programs are presented. Three questions were considered: (1) What is industry looking for in a plant site? (2) What does industry mean to a city? (3) How have cities attracted new industry? After investigating these questions some suggestions for application to Kansas are presented.

Industry is primarily interested in the profit making potential of a new plant site. Some of the key factors involved in site selection are: (1) Availability of labor and its cost; (2) availability of raw materials and their cost; (3) availability of transportation and its cost; and (4) the accessibility of markets.

A city gains from the investment a firm puts into the local economy which creates new jobs and purchasing power. The employment multiplier seems to average 1.7 while retail sales increase about \$4,000 per employee. Tax-payers benefit from the larger tax base provided by industry which largely pays for most government services.

Industrial developers seeking new businesses usually stress such additional advantages of their site as: (1) Favorable tax climate; (2) favorable

industrial climate; (3) direct financial aid; and (4) a good place to live. Financial aid is the most important lure they usually have to offer.

The results of industrial promotions have generally been only slightly successful. A locality either has what industry wants or it doesn't. If two or more areas are about equal, some of the inducements offered by promoters may have some attractive value.

A few states, notably Florida, California and Arizona, have been able to expand at rates much higher than average. Super salesmanship over a period of fifteen to thirty years has made this possible.

Kansas has not been very successful in obtaining new industry. This is partly because the most important factors of plant site selection are directly related to population. Kansas will have to wait until the center of population in the United States moves nearer before it can more quickly industrialize.

In the meantime, Kansas should attempt to help local industry expand by finding new markets and uses for products already produced. Research in the areas of agri-business could provide new job opportunities for future generations.